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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,839	09/17/2003	Sung Uk Moon	242923US90	2705

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EXAMINER	
WENDELL, ANDREW	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,839	MOON ET AL.	
	Examiner	Art Unit	
	Andrew Wendell	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *17 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☒ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 3 recites the limitation "the radio network controller" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 2 is rejected under 35 U.S.C. 102(e) as being anticipated by Famolari et al. (US Pat Appl# 2002/0191567).

Regarding claim 2, Famolari et al. system for soft handoff teaches a response signal transmitter configured to transmit a response signal including a group ID identifying a multicast group to a base station 4 and 4' (Fig. 2), the response signal

responding to a control signal for the multicast group which the mobile station is joining in (Section 0054).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Famolari et al. (US Pat Appl# 2002/0191567) in view of Beckmann et al. (US Pat Appl# 2003/0022683).

Regarding claim 1, Famolari et al. system for soft handoff teaches a radio communication system having base stations 4 and 4' (Fig. 2) and mobile stations 2 and 2' (Fig. 2), to perform multicast communication (Sections 0014-0015), wherein the mobile station comprises a response signal transmitter configured to transmit a response signal including a group ID identifying a multicast group to the base station (Section 0054), the response signal responding to a control signal for the multicast group which the mobile station is joining in (Sections 0054 and 0055); and the base station comprises a response signal transmitter configured to transmit at least one response signal to the multicast agent, the at least one response signal being selected from at least one response signal transmitted from mobile stations joining in the same multicast group (Sections 0054-0055). Famolari et al. fails to teach a radio network controller.

Beckmann et al. transmitting multicast messages in a radio system, and correspondingly designed radio system, transmitter and receiver teaches a radio communication system having a radio network controller RNC (Fig. 1), base stations BS (Fig. 1) and mobile stations UE 1-5 (Fig. 1), to perform multicast communication (Sections 0005-0006).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a radio network controller as taught by Beckmann et al. into Famolari et al. multicast system in order to transmit multicast messages reliably and securely with little expenditure (Section 0004).

Regarding claim 3, Famolari et al. teaches a base station 4 and 4' (Fig. 2) supporting multicast communication (Sections 0035-0036), the base station comprising a response signal transmitter configured to transmit at least one response signal to the multicast agent, the at least one response signal responding to a control signal for a multicast group and being selected from at least one response signal transmitted from mobile stations joining in the same multicast group (Sections 0054-0055). Famolari et al. fails to teach a radio network controller.

Beckmann et al. teaches a base station BS (Fig. 1) supporting multicast communication (Section 0064), the base station comprising a response signal transmitter configured to transmit at least one response signal to the radio network controller RNC (Fig. 1 and Section 0067).

8. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Famolari et al. (US Pat Appl# 2002/0191567) in view of Beckmann et al. (US Pat Appl# 2003/0022683) and further in view of Lo et al. (US Pat# 6,122,483).

Regarding claim 4, Famolari et al. system for soft handoff in view of Beckmann et al. transmitting multicast messages in a radio system, and correspondingly designed radio system, transmitter and receiver teaches the limitations in claim 3. Famolari et al. and Beckmann et al. fail to teach a signal holder.

Lo et al. apparatus for multicast messaging in a public satellite network teaches a response signal holder configured to hold the at least one response signal for a predetermined duration (Col. 9 lines 9-12).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a signal holder as taught by Lo et al. into a radio network controller as taught by Beckmann et al. into Famolari et al. multicast system in order to minimize the consumption of valuable channel resources (Col. 2 lines 15-19).

Regarding claim 5, Lo et al. further teaches wherein the response signal holder holds the at least one response signal for a predetermined duration after the first reception of the at least one response signal (Col. 9 lines 9-12).

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Famolari et al. (US Pat Appl# 2002/0191567) in view of Jellema et al. (US Pat# 6,707,900).

Regarding claim 6, Famolari et al. system for soft handoff teaches a radio communication system having base stations 4 and 4' (Fig. 2) and mobile stations 2 and

2' (Fig. 2), to perform multicast communication (Sections 0014-0015) wherein the mobile station comprises a response signal transmitter configured to transmit a response signal including a group ID identifying a multicast group to the base station, the response signal responding to a control signal for the multicast group which the mobile station is joining in (Section 0054). Famolari et al. fails to teach a response signal counter and transmitter and judger.

Jellema et al. dynamic load limiting teaches a response signal counter configured to count the number of response signals 24 (Fig. 2) transmitted from mobile stations joining in the same group; a judger configured to judge whether the counted number of response signals is more than a predetermined number or not 26 (Fig. 2); and a response signal transmitter configured to transmit at least one response signal to the radio network controller, when the counted number of response signals is more than the predetermined number (Fig. 2 and Col. 2 lines 60-67).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a response signal counter and transmitter and judger as taught by Jellema et al. into Famolari et al. multicast system in order to avoid overloaded conditions and have a more efficient system (Col. 1 lines 22-30).

10. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jellema et al. (US Pat# 6,707,900) in view of Famolari et al. (US Pat Appl# 2002/0191567).

Jellema et al. dynamic load limiting teaches a base station comprising a response signal counter configured to count the number of response signals 24 (Fig. 2) to a control signal for a group, the response signals being transmitted from mobile stations joining in the same group; a judger configured to judge whether the counted number of response signals is more than a predetermined number or not 26 (Fig. 2); a response signal transmitter configured to transmit at least one response signal to a radio network controller, when the counted number of response signals is more than the predetermined number (Fig. 2 and Col. 2 lines 60-67). Jellema et al. fails to teach a base station supporting multicast communication.

Famolari et al. system for soft handoff teaches a base station supporting multicast communication (Sections 0035-0036).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a base station supporting multicast communication as taught by Famolari et al. into Jellema et al. dynamic load limiting in order to add new multicast addresses, reducing caching at the mobile terminal, and increase the probability of locating the mobile terminal (Sections 0021-0022).

Regarding claim 8, the combination including Jellema et al. teaches wherein the response signal transmitter notifies that the counted number of response signals is more than the predetermined number, or the counted number of response signals to the radio network controller (Fig. 2).

11. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jellema et al. (US Pat# 6,707,900) in view of Beckmann et al. (US Pat Appl# 2003/0022683).

Jellema et al. dynamic load limiting teaches a receiver configured to receive response signals transmitted from base stations 22 (Fig. 2); a extractor configured to extract information showing that the number of received response signals is more than a predetermined number from the received response signals 24-26 (Fig. 2); and a radio controller configured to perform radio controlling in communication in accordance with the extracted information (Fig. 2 and Col. lines 60-67). Jellema et al. fails to teach a radio network controller supporting multicast communication.

Beckmann et al. transmitting multicast messages in a radio system, and correspondingly designed radio system, transmitter and receiver teaches a radio network controller supporting multicast communication (Fig. 1 and Section 0064).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a radio network controller supporting multicast communication as taught by Beckmann et al. into Jellema et al. dynamic load limiting in order to transmit multicast messages reliably and securely with little expenditure (Section 0004).

Regarding claim 10, Jellema et al. teaches a receiver configured to receive response signals transmitted from base stations 22 (Fig. 2); a extractor configured to extract information showing that the number of received response signals 24-26 (Fig. 2); and a radio controller configured to perform radio controlling in communication in

accordance with the extracted information (Fig. 2 and Col. lines 60-67). Jellema et al. fails to teach a radio network controller supporting multicast communication.

Beckmann et al. transmitting multicast messages in a radio system, and correspondingly designed radio system, transmitter and receiver teaches a radio network controller supporting multicast communication (Fig. 1 and Section 0064).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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